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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,120	05/05/2005	Reinhard Linemann	FR-AM1898 NP	2443

31684 7590 02/27/2006

ARKEMA INC.  
PATENT DEPARTMENT - 26TH FLOOR  
2000 MARKET STREET  
PHILADELPHIA, PA 19103-3222

EXAMINER
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CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/534,120

Applicant(s)

LINEMANN ET AL.

Examiner

Ling-Siu Choi

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1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 05/05/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This Office Action is a 371 of PCT/FR03/03/03266 filed November 3, 2003. Claim 13 was canceled and claims 1-12 are now pending.

### ***Election/Restriction***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-11, drawn to a cationic catalyst system [claims 1-9] and a process for cationic polymerization of C<sub>3-10</sub> monomers [claims 10-11], classified in class 526, subclass 220.
  - II. Claim 12, drawn to a polymer, classified in class 526, subclass 348.7.
3. The inventions are distinct, each from the other because of the following reasons:

Inventions I [claims 1-9] and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP ' 806.04, MPEP ' 808.01). In the instant case the different inventions are directed to a cationic catalyst system and to a polymer.

Inventions I [claims 10-11] and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product

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or (2) that the product as claimed can be made by another and materially different process (MPEP ' 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as a process using free radical initiator or Ziegler-Natta catalyst.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Mr. Thomas F. Roland on November 7, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claim 12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

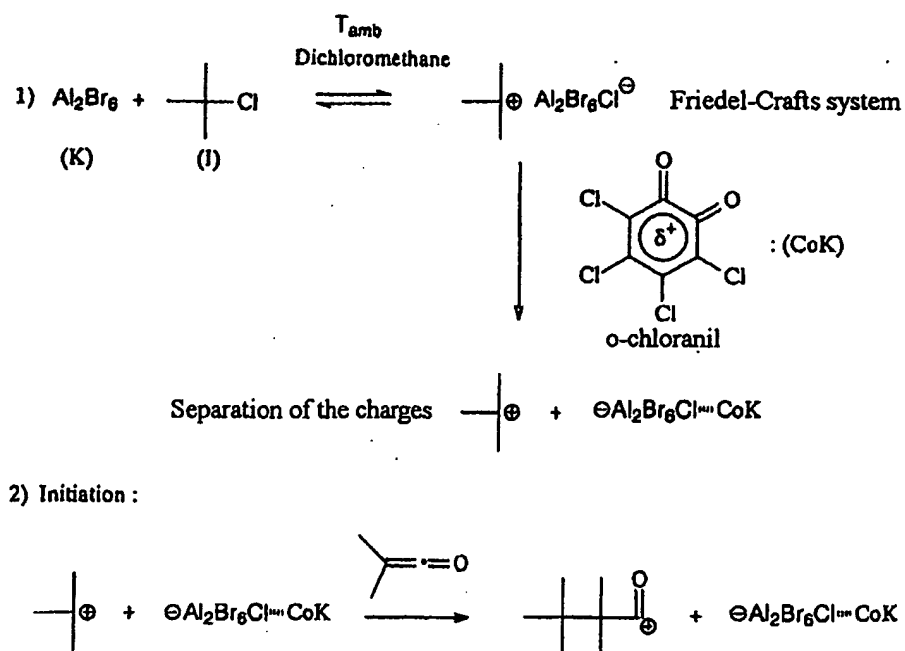
6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### Claim Analysis

7. Summary of claim 1:

A cationic catalyst system comprising	
A	an initiator (I)
B	a catalyst (K)
C	a cocatalyst (CoK)

wherein the cocatalyst (CoK) is an agent which releases  
 the polymerization active center from its counterion generated by the reaction  
 between the catalyst (K) and the initiator (I)



### Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office

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**action:**

**A person shall be entitled to a patent unless --**

**(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**

9. Claims 1-11 are rejected under 35 U.S.C. 102(a) as being anticipated by

Langstein et al. (US 2002/0086959 A1 $\cong$ US 6,846,885 B2).

Langstein et al. disclose a process to prepare **isoolefin copolymer** in the presence of **zirconinium halides**, hafnium halides, or mixtures thereof and organic nitro compounds in a solvent suitable for cationic polymerization, wherein the solvent is **halogenated hydrocarbon** or a mixture of halogenated hydrocarbon and non-halogenated hydrocarbon; and the **organic nitro compound is R-NO<sub>2</sub>** with R is C<sub>6-24</sub> - cycloaryl (abstract; [0011]-[0012]; claims 1-11). Thus, the present claims are anticipated by the disclosure of Langstein et al.

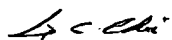
***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

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**LING-SUI CHOI**  
**PRIMARY EXAMINER**

February 15, 2006